



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,608	08/04/2003	Peng Zhang	06292P USA	6594
23543	7590	05/26/2004	EXAMINER	
AIR PRODUCTS AND CHEMICALS, INC. PATENT DEPARTMENT 7201 HAMILTON BOULEVARD ALLENTOWN, PA 181951501			SCHILLING, RICHARD L	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/634608

Applicant(s)

Zhang et al

Examiner

R L Schilling

Group/Art Unit

1752

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-29 is/are pending in the application.
- Of the above claim(s) 1-18, 29 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 19-28 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☒ Claim(s) 1-18, 29, 19-28 are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 8-4-03
12-17-03
2-2-04 ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

Office Action Summary

Art Unit 1752

1. Restriction to one of the following inventions is required under 35 U.S.C. § 121:

I. Claims 1-18 and 29, drawn to photoresist development processes, classified in Class 430, subclass 325.

II. Claims 19-28, drawn to solutions, classified in Class 430, subclass 331.

The inventions are distinct, each from the other because of the following reasons:

The compositions of Group II need not be used in the processes of Group I but may be used, for example, as a rinsing solution for developed photographic film or as a fountain solution for printing plates or treating solutions for textiles as disclosed in Lassila et al. '182.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classifications, restriction for examination purposes as indicated is proper.

During a telephone conversation with Rosaleen Morris-Oskanian on May 18, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 19-28. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-18 and 29 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as

being drawn to a non-elected invention.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in (1) an application for patent, published under Section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 19-28 are rejected under 35 U.S.C. § 102(e) as being fully met by Skee. Skee (see particularly paragraphs 25, 45, 48, 54, 57, 59, 61, 63-70; Examples 1, 2 and 7) discloses cleaning solutions comprising preferably .01-.3% of nonionic

acetylenic diol surfactants within the scope of those set forth in the instant claims. In Formulas I and II of the instant claims, the propylene oxide and/or ethylene oxide groups need not be present.

3. Claims 19-28 are rejected under 35 U.S.C. § 102(b) as being fully met by European Patent Publication 1115035. The European patent publication (see particularly page 11, lines 21-57; page 6, lines 27-55; Examples 54-56) disclose aqueous developer solutions containing the surfactants of the instant claims at concentrations set forth in the instant claims.

4. Claims 19-28 are rejected under 35 U.S.C. § 102(b) as being fully met by Tanaka et al. or Matsuda et al. Tanaka et al. (see particularly column 3, lines 1-27; column 4, line 6 - column 5, line 41; Examples 1 and 2) and Matsuda et al. (see particularly column 2, line 54 - column 3, line 3; column 3, line 38 - column 4, line 40) disclose aqueous developer solutions for photoresists with surfactants as set forth in the instant claims at concentrations required by the instant claims. In regard to claim 28, p and q may be 0.

5. Claims 19-28 are rejected under 35 U.S.C. § 102(b) as being fully met by Honda. Honda (see particularly column 3, lines 7-22; column 4, lines 13-45; column 5, lines 11-25; Example 1) disclose rinsing compositions comprising surfactants as set

forth in the instant claims at concentrations required by the instant claims.

6. Claims 19-28 are rejected under 35 U.S.C. § 102(b) as being fully met by Nishi et al. '854. Nishi et al. (see particularly column 76, lines 11-63; column 105, line 53 - column 106, line 31) disclose photoresist compositions containing organic solvents and acetylenic diols within the scope of the surfactants set forth in the instant claims at concentrations preferably less than 1% by weight of the photoresist composition.

7. Claims 19-28 are rejected under 35 U.S.C. § 102(e) as being fully met by Lassila et al '182. Lassila et al. (see particularly column 5, lines 47-65; column 10, line 20 - column 11, line 60; Example 26) disclose aqueous solutions containing the surfactants of the instant claims at concentrations required by the instant claims.

8. The prior art cited by applicants and cited in the parent application has been considered and is cited herein of interest. Rodney et al. is substantially cumulative to European Patent Publication 1115035. Tanabe et al. discloses strippers with surfactants as set forth in the instant claims. Matsumoto et al. disclose aqueous dampening solutions with surfactants as set forth in the instant claims. Medina and Kishnan disclose

Serial No. 10/634,608

-6-

Art Unit 1752

aqueous solutions with surfactants as set forth in the instant claims. Wanat discloses aqueous photoresist developers with surfactants as set forth in the instant claims. Simon discloses aqueous solutions containing surfactants as set forth in the instant claims. Wakiya et al. disclose photoresist stripping compositions comprising surfactants as set forth in the instant claims. Hatakeyama et al. is cited of interest in the art as being substantially cumulative to Nishi et al. Lachowski, cited by applicants, discloses aqueous solutions of surfactants at concentrations required by the instant claims which are preferably nonionic surfactants containing EO/PO groups used to treat substrates with photoresist coatings prior to development to enhance development or after development as a rinse (column 3, lines 1-30; column 4, lines 26-52).

9. Any inquiry concerning this communication should be directed to Mr. Schilling at telephone number (571) 272-1335.

RLSchilling:cdc

May 20, 2004

RICHARD L. SCHILLING
PRIMARY EXAMINER
GROUP 1100 1752

